

# Exhibit 13

<https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-are-private-public-hybrid-clouds>

## What are public, private, and hybrid clouds?

An intro to cloud service deployment options.

Start free

Overview Benefits Deployment options Public cloud Private cloud FAQs Related products

### Hybrid cloud computing

A hybrid cloud is a type of [cloud computing](#) that combines on-premises infrastructure—or a private cloud—with a public cloud. Hybrid clouds allow data and apps to move between the two environments.

Many organizations choose a hybrid cloud approach due to business imperatives such as meeting regulatory and data sovereignty requirements, taking full advantage of on-premises technology investment, or addressing low latency issues.

The hybrid cloud is evolving to include edge workloads as well. Edge computing brings the computing power of the cloud to IoT devices—closer to where the data resides. By moving workloads to the edge, devices spend less time communicating with the cloud, reducing latency, and they are even able to operate reliably in extended offline periods.

### The benefits of a hybrid cloud platform

A hybrid cloud platform gives organizations many advantages—such as greater flexibility, more deployment options, security, compliance, and getting more value from their existing infrastructure. When computing and processing demand fluctuates, hybrid cloud computing gives businesses the ability to seamlessly scale up their on-premises infrastructure to the public cloud to handle any overflow—without giving third-party datacenters access to the entirety of their data. Organizations gain the flexibility and innovation the public cloud provides by running certain workloads in the cloud while keeping highly sensitive data in their own datacenter to meet client needs or regulatory requirements.

This not only allows companies to scale computing resources—it also eliminates the need to make massive capital expenditures to handle short-term spikes in demand, as well as when the business needs to free up local resources for more sensitive data or applications. Companies will pay only for resources they temporarily use instead of having to purchase, program, and maintain additional resources and equipment that could remain idle over long periods of time.

[Read more about hybrid cloud capabilities and getting started with Azure >](#)

Advantages of the hybrid cloud:

- **Control**—your organization can maintain a private infrastructure for sensitive assets or workloads that require low latency.
- **Flexibility**—you can take advantage of additional resources in the public cloud when you need them.
- **Cost-effectiveness**—with the ability to scale to the public cloud, you pay for extra computing power only when needed.
- **Ease**—transitioning to the cloud doesn't have to be overwhelming because you can migrate gradually—phasing in workloads over time.

### Understanding your deployment options—Public cloud, private cloud, or hybrid cloud?

There's no one type of cloud computing that's right for everyone. Several different cloud computing models, types, and services have evolved to meet the rapidly changing technology needs of organizations.

There are three different ways to deploy cloud services: on a public cloud, private cloud, or hybrid cloud. Which deployment method depends on your business needs.

### What is a public cloud?

Public clouds are the most common type of cloud computing deployment. The cloud resources (like servers and storage) are owned and operated by a third-party cloud service provider and delivered over the internet. With a public cloud, all hardware, software, and other supporting infrastructure are owned and managed by the cloud provider. Microsoft Azure is an example of a public cloud.

In a public cloud, you share the same hardware, storage, and network devices with other organizations or cloud "tenants," and you access services and manage your account using a web browser. Public cloud deployments are frequently used to provide web-based email, online office applications, storage, and testing and development environments.

Advantages of public clouds:

- **Lower costs**—no need to purchase hardware or software, and you pay only for the service you use.
- **No maintenance**—your service provider provides the maintenance.
- **Near-unlimited scalability**—on-demand resources are available to meet your business needs.
- **High reliability**—a vast network of servers ensures against failure.

### What is a private cloud?

A private cloud consists of cloud computing resources used exclusively by one business or organization. The private cloud can be physically located at your organization's on-site datacenter, or it can be hosted by a third-party service provider. But in a private cloud, the services and infrastructure are always maintained on a private network and the hardware and software are dedicated solely to your organization.

In this way, a private cloud can make it easier for an organization to customize its resources to meet specific IT requirements. Private clouds are often used by government agencies, financial institutions, any other mid- to large-size organizations with business-critical operations seeking enhanced control over their environment.

Advantages of a private cloud:

- **More flexibility**—your organization can customize its cloud environment to meet specific business needs.
- **More control**—resources are not shared with others, so higher levels of control and privacy are possible.
- **More scalability**—private clouds often offer more scalability compared to on-premises infrastructure.

### Frequently asked questions

[Expand all](#) | [Collapse all](#)

> What are examples of the hybrid cloud and public vs private clouds?

> Where can I learn more about types of cloud services?

> What is infrastructure as a service (IaaS)?

> What is platform as a service (PaaS)?

> What is serverless computing?

> What is software as a service (SaaS)?

> What is edge computing?

> Which is correct: "hybrid cloud" or "cloud hybrid"?

### Get started with building hybrid cloud solutions on Azure

Find a comprehensive approach that fits your own scenario across on-premises, multicloud, and edge environments. Explore unique hybrid offerings such as [Azure Arc](#) and [Azure Stack](#)—with the flexibility to innovate anywhere in your hybrid environment, while operating seamlessly and securely in the trusted Microsoft cloud.

[Get started with hybrid cloud solutions](#) >



#### [Azure hybrid cloud solutions](#)

Deliver innovation anywhere with Azure across on-premises, multicloud, and the edge.



#### [Azure Arc](#)

Extend Azure services and management to any infrastructure.



#### [Azure Stack](#)

Build and run hybrid apps across datacenters, edge locations, remote offices, and the cloud.



#### [Azure Hybrid Benefit](#)

Migrate your workloads cost-effectively to the most comprehensive cloud for Windows and SQL Server.



#### [Azure VMware Solution](#)

Seamlessly run VMware workloads across Azure and on-premises environment.



#### [Azure Sentinel](#)

Gain AI-enabled threat protection with a cloud-native SIEM.



#### [Microsoft Defender for Cloud](#)

Protect hybrid cloud workloads against threats with streamlined security.



#### [Azure ExpressRoute](#)

Privately connect on-premises networks to the cloud, and enjoy high speed and reliability.



#### [Azure VPN Gateway](#)

Connect your infrastructure to the cloud and enable remote user access at scale.

### Start building with Azure

Try Azure [cloud computing](#) services free for up to 30 days, or get started with pay-as-you-go pricing. There's no upfront commitment—cancel anytime.

[Try Azure for free](#)

[Explore pay as you go](#)